

REMARKS

THE SECTION 103 REJECTIONS

Claims 1-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2003/0081692A1 to Kwan (“Kwan”) and U.S. Patent No. 6,366,568 to Bolgiano (“Bolgiano”). Applicants respectfully disagree and traverse this rejection for at least the following reasons.

A. Independent Claim 1:

Amended independent claim 1 includes the features of varying the number of codes used for retransmission based on a condition of the communication channel and a desired redundancy for successful decoding data in a retransmission. No corresponding features are disclosed or suggested by Kwan and Bolgiano, either alone or in combination.

For example, Kwan appears to disclose a method for determining the best bit rate at which a highest useable modulation and coding scheme (MCS) achieves a maximum allowed number of channelization codes or less. (See Kwan, Abstract). Thus, in Kwan, the number of channelization codes is a function of the best bit rate and not a function of a desired redundancy for the successful decoding of data, as in claim 1. In addition, Kwan does not appear to disclose varying the codes used for a retransmission, as in claim 1.

Turning to Bolgiano, it appears to disclose a wireless communication system that combines time and space diversity to reduce fading and simplify receiver design. In Bolgiano, the same packet is transmitted at three different times from three different antennas, and uses the best data packet(s) to reduce the effects of fading. (See Board of Appeal Decision, pages 8 and 9). Thus, in Bolgiano, the retransmissions reduce the effects of fading. Bolgiano expressly states that the retransmitted packets can carry substantially the same information, but are

modulated with different spreading codes or different segments of the same spreading code. (See Board of Appeal Decision, pages 8 and 9 and Bolgiano, col. 3, lines 1-14). However, the number of codes used for the retransmission in Bolgiano are not varied based on a condition of the communication channel and a desired redundancy for successful decoding of data in a retransmission, as in claim 1. Nor can it be said that varying codes to reduce fading is the same as varying codes for the sake of redundancy to successful decode data in a retransmission.

In sum, because neither Kwan nor Bolgiano, individually or in combination, disclose or suggest varying the number of codes used for the retransmission based on a condition of the communication channel and a desired redundancy for successful decoding of data in a retransmission it is respectfully submitted that claim 1 (and dependent claims 2-13) is not rendered obvious by the combination of Kwan and Bolgiano.

B. Independent claims 14, 15 and 17

Amended independent claims 14, 15 and 17 also include the feature of varying the number of codes for retransmission to provide a desired redundancy for successful decoding of data in the retransmission. Accordingly, as set forth above with respect to independent claim 1, the subject matter of claims 14, 15 and 17 is not rendered obvious by the combination of Kwan and Bolgiano, individually or in combination.

C. Dependent Claims 2-13, 16 and 18-20

Claims 2-13, 16 and 18-20 depend amended independent claims 1, 15 and 17, respectively, and, therefore, are patentable over the combination of Kwan and Bolgiano for at least the reasons set forth above with respect to independent claims 1, 15 and 17.

Moreover, several of the dependent claims are patentable over the combination of Kwan and Bolgiano for other reasons as well.

(i) claim 3

For example, claim 3 includes the feature of receiving a retransmission request for at least part of a previous transmission wherein the retransmission is in response to the retransmission request. In comparison, Bolgiano's so-called retransmissions are not related to a retransmission request. Instead, Bolgiano discloses three transmissions of the same original information signal, where all three transmissions are sent before any confirmation, or lack thereof, is generated or received. (*see for example*, Bolgiano,;..."three transmitted repetitions of the same information signal", column 8, lines 39-41; "...the transmitted information rate is increased to allow the transmitted signal to be repeated three different times from three different antennas", column 9, lines 58-62; and "Since the data is transmitted three times there will be three CDMA signals transmitted", column 18, lines 2-4). Thus, even if linguistically the Board and Bolgiano (in its claims) may describe Bolgiano's multiple transmissions of the same original transmission as a "retransmission" this does not mean that Bolgiano's retransmissions are the same as the claimed retransmissions; in fact, they are not. In sum, at no time does Bolgiano discuss the transmission of an original transmission after a retransmission request has been received. Instead, Bolgiano's three transmissions are sent before any retransmission request is received.

It is well established that while claims may be interpreted broadly, any interpretation must be consistent with the specification, *In re Hyatt*, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). It is respectfully submitted that interpreting Bolgiano's transmission of three separate original transmissions as being the same as the claimed retransmissions is inconsistent with the specification. Further, it is respectfully submitted that those skilled in the art, upon reading the

present specification and then reading Bolgiano, would not interpret Bolgiano's multiple transmissions as being the same as the claimed retransmissions.

Notwithstanding the above, to make the retransmission feature of the present invention clearer to the Examiner and Board, the Applicants have amended dependent claim 3 to indicate that the claimed retransmissions occur "...in response to the retransmission request."

In conclusion, Applicants respectfully request reconsideration, withdrawal of the rejection and allowance of dependent claim 3.

(ii) claim 4

Claim 4 includes the feature of transmitting, simultaneously, a code multiplexed new transmission within a fixed length frame from a transmitter using a second number of codes of a plurality of codes, wherein the number of codes for a retransmission and the second number of the codes equals a total number of codes of the plurality of codes allocated to the fixed length frame. In contrast, neither Kwan nor Bolgiano disclose or suggest a frame where both retransmissions and new transmissions are simultaneously sent from the same transmitter.

Accordingly, the Applicants respectfully request reconsideration, withdrawal of the rejection and allowance of dependent claim 4.

Conclusion:

In view of the foregoing, Applicants respectfully request withdrawal of the rejections of claims 1-20 under 35 U.S.C. §103(a) and allowance of these claims.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John E. Curtin at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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